Memorandum

To: John Caulo, Project Manager

Date: April 23, 2020

Project #: 58237.00

From: Jenn Conley, PE, PTOE
Karen Sentoff, EIT

Re: Burton Hub
Additional Information for South Burlington, Vermont

VHB has conducted a Traffic Impact Study (TIS) for the proposed redevelopment of the Burton Hub properties located at 180 and 266 Queen City Park Road (formerly 80 and 152 Industrial Parkway) in Burlington, Vermont. The findings of the TIS have been summarized in a memorandum dated WHAT.

As outlined in the TIS, site encapsulates the Burton main office and retail property at 180 Queen City Park Road as well as the partially vacant adjacent facility at 266 Queen City Park Road, which currently serves as prototyping, storage, and office space for Burton. The proposed redevelopment program of the site includes the following elements:

- 180 Queen City Park Road will be adapted to serve as 66,300 square feet of office space with 2,750 square feet of storage;
- 266 Queen City Park Road will be renovated to serve multiple purposes, including:
    - 10,275 square feet of office space;
    - 8,745 square feet of research and development;
    - 18,425 square feet of manufacturing;
    - 12,545 square feet of storage and warehousing;
    - 7,825 square feet of retail;
    - 6,835 square feet of restaurant;
    - 12,265 square feet of performing arts space; and,
    - 7,465 square feet of indoor recreation space;
- Parking will be reconfigured from the current 276 spaces at 180 Queen City Park Road and 181 spaces at 266 Queen City Park Road to be a combined 496 spaces.

A number of concerns have been raised by the City and residents of South Burlington. This memorandum provides clarification on those topics and additional information as appropriate.

Existing Conditions

Additional information on the roadway and pedestrian network in South Burlington is provided below. The South Burlington intersections of Queen City Park Road at Central Avenue, Queen City Park Road at Pine Street and Queen City Park Road at the KMart/Hannaford Connector City were not included in the TIS. Information on those intersections is provided below. In addition, additional information was requested on the trip generation of the Burton site.

40 IDX Drive, Building 100
Suite 200
South Burlington, Vermont 05403

Existing Roadway Conditions at South Burlington Intersections

Queen City Park Road is a Class 2 Town Highway situated at the southernmost edge of Burlington, Vermont, crossing over to South Burlington before reaching its eastern terminus at US-7 / Shelburne Road. On July 1st, 2019, the name of Industrial Parkway, from its southern terminus at Queen City Park Road to its northern terminus at Home Avenue, was changed to Queen City Park Road. With the name change came the renumbering of the locations along the new section of Queen City Park Road, including 180 and 266 Queen City Park Road, where Burton's proposed headquarter expansion is located.

Queen City Park Road at the southern origin is posted as 25 miles per hour and is otherwise assumed to be 25 mph. In the immediate vicinity of the Burton site, Queen City Park Road has 28-feet of pavement width to facilitate two-way traffic. South of the project site, Queen City Park Road narrows to 25' of pavement width and again to 22' as it crosses a single lane bridge with no traffic control. "No Parking This Side of Street" signage is posted along the north and east side of Queen City Park Road from the one-way bridge to Home Avenue. Just off of Queen City Park Road along Central Avenue there are posted "Park Smart" signs.

There are no formalized bicycle or pedestrian facilities along Queen City Park Road in the immediate vicinity of the project site, with the exception of approximately 130 feet of sidewalk and a bus transit shelter in front of GMT's facility and approximately 400 feet of side path from Central Avenue to a pedestrian bridge adjacent to the single lane bridge south of the project site. These two short facilities are not connected to other active transportation facilities or the broader network like the sidewalks that begin approximately 240 feet further east along Queen City Park Road, the sidewalks to the north on Home Avenue or Austin Drive, or the bike path that runs along the proposed Champlain Parkway corridor.

Queen City Park Road intersects with Central Avenue to form a three way unsignalized intersection with the Central Avenue approach operating under stop control. Each leg of this intersection consists of a single lane in each direction. As outlined above, there is a sidepath on the northeast corner of the intersection from the single lane bridge to Central Avenue.

To the east of the single lane bridge, Pine Street intersects with Queen City Park Road at a three way unsignalized intersection with Pine Street under Stop sign control. Each leg of the intersection consists of a single lane in each direction. Pedestrians are accommodated on a sidewalk along the south edge of Queen City Park Road and there is a shared use path that meets the intersection immediately west of Pine Street and extends along the future alignment of the Champlain Parkway from that point to Home Avenue.

Another 1,100 feet to the east, just prior to meeting US Route 7, Queen City Park Road intersects with what has been called the K-Mart Connector and more recently provides access to the Hannaford Plaza. The Connector forms the south leg of the unsignalized intersection and Queen City Park Road forms the west and north legs. A stub to one building and a pedestrian connection to US Route 7 form the east leg of the intersection. Each leg of the intersection is controlled by a stop sign. A sidewalk is provided along the south side of Queen City Park Road and the stub to the east.

Existing Site Trip Generation

A comparison of the trip generation as counted at the site driveways versus the trips anticipated to be generated by the Institute of Transportation Engineers (ITE). The trips entering and exiting the site driveway were observed on Wednesday, July 31, 2019. As outlined above, there were construction projects occurring in the greater area (Pine Street, Kmart connector) but none that prevented access to the Burton site. Although the existing counts were collected in July, typically a vacation period for employers, Burton has indicated that their staff tends to take more vacation time during the winter months than during the summer months. In any case, the counted trip generation was higher than ITE. To provide the most conservatively high calculation of future net new trips, for future conditions analyses, credit was only taken for the trips estimated by ITE.

Future Conditions

The future conditions section of the TIS focused on anticipated Champlain Parkway traffic patterns, proposed Burton Hub development, other considerations for development on Queen City Park Road, and the future condition traffic networks for evaluating the Burton Hub project development. To address South Burlington's concerns, the status of the Champlain Parkway was reviewed, future trip generation and distribution was clarified and the operation of the South Burlington intersections was determined under future conditions with and without the Champlain Parkway.

Future traffic volume conditions

As outlined, the Champlain Parkway is a proposed transportation link that will connect from I-189 and US Route 7 along the I-189 alignment with its first intersection at Home Avenue, a four-way signalized intersection providing more direct access from I-189 and I-89 beyond into this area that includes the Burton property.

The Champlain Parkway underwent significant review, traffic analysis, roadway design and is anticipated to be constructed in upcoming years. The Champlain Parkway traffic analysis evaluated 2008 traffic volume operations both without and with the Champlain Parkway in place. The Champlain Parkway traffic analysis also evaluated 2028 conditions without and with the Champlain Parkway in place. The City of Burlington has requested that the project evaluate the impact of the Burton project on the base condition traffic volumes as well as on future year 2028 traffic volume conditions as evaluated in the Champlain Parkway traffic analysis – both without and with the Champlain Parkway infrastructure in place.

Intersection Traffic Volumes

The existing traffic volumes available at the South Burlington intersections were obtained from historic VTrans data and balanced along Queen City Park Road between US 7, the Connector and Pine Street to represent the existing conditions. The growth and volume adjustments associated with the twenty-year time horizon and Champlain Parkway traffic reassignments were included in the 2028 volumes at those intersections.

Proposed Trip Generation

As outlined above and in the TIS, 180 Queen City Park Road will be adapted to serve as 66,300 square feet of office space with 2,750 square feet of storage. 266 Queen City Park Road will be renovated to serve multiple purposes, including: 10,275 square feet of office space; 8,745 square feet of research and development; 18,425 square feet of

manufacturing; 12,545 square feet of storage and warehousing; 7,825 square feet of retail; 6,835 square feet of restaurant;12,265 square feet of performing arts space; and, 7,465 square feet of indoor recreation space.

Trip estimates calculated for the proposed redevelopment in the TIS were calculated based on rates published by the Institute of Transportation Engineers (ITE) in the 10th edition of the Trip Generation Manual for the weekday AM and PM peak hours. In addition, because there is not an applicable ITE LUC for the Performing Arts Center, VHB obtained information from the Higher Ground who will be occupying the site.

Based on information from Higher Ground's website, the facility hosts an average of four to five events per week with typical showtimes of 7:30 or 8:30 PM with door opening an hour earlier. The existing Higher Ground parking lot accommodates 350 vehicles which accommodates even sold out nights (1050 attendees), or a rate of three attendees per vehicle.

The proposed venue will accommodate 1500 people at a peak event. Although peak level events are expected to be rare, to be conservative, the analysis was based on a peak event night. Based on the operational plan, events are expected to continue to start between 7:30 and 8:30 PM.

Applying the one vehicle trip per three attendees' parking generation rate to the proposed site occupancy of 1500 people results in a peak parking demand of 500 trips per show. Although shows are anticipated to start significantly after the peak hour, a conservatively high estimate of approximately 30 percent of those trips were considered to arrive during the commuter peak hour.

Because the restaurant space is expected to serve employees of Burton as well as concert goers and the public, the trip generation was calculated using two different approaches. The first was on a non-event night when the restaurant was operating primarily serving the general public and the PM peak hour trip generation was estimated to be 97 trips based on ITE. The second approach was on a night of a peak event at the performance venue. On a peak event night, it was conservatively estimated that 50 percent of the trips to the restaurant space will be internally captured by Burton employees and concertgoers. With peak occupancy at the performance venue and 50% of the restaurant venue serving the public instead of performance attendees, the trip generation was approximately double that if the restaurant was serving non-event attendees on a different night. The higher trip generation was used.

The total trip generation of the site is anticipated to be 121 AM peak hour trips (101 in and 20 out) and 363 PM peak hour trips (211 in and 153 out). As indicated above, the current site is generating 115 AM peak hour trips (97 in and 18 out) and 141 PM peak hour trips (37 in and 104 out). Therefore, the net trip generation anticipated at the site will be 6 trips during the weekday AM peak hour (4 in and 2 out) and 222 trips during the PM peak hour (174 in and 48 out).

Trip Distribution

The trips generated by the proposed redevelopment were assigned to area roadways based on likely trip patterns associated with those trips. For employees and visitors to Burton, the trips were assigned following existing traffic patterns to and from the site. Approximately 60 percent of Burton trips approach from/depart to the east on Queen City Park Road and 40 percent approach from/depart to the north on Queen City Park Road. The trips were then distributed per existing traffic patterns.

The trip distribution for Higher Ground patrons was developed by obtaining zip code data from credit cards used for tickets at the existing venue for the past year. Based on that data, approximately 30 percent of Higher Ground patrons will approach locally from the north, approximately 20 percent will approach locally from the south, and 50 percent will approach more regionally via I-189. Therefore, the Higher Ground trips were assigned separately than Burton traffic to reflect different travel patterns.

For the condition with the Champlain Parkway in place, the trip distribution considered how the presence of that roadway would influence travelers when making route choices. Some trips may use the Champlain Parkway to avoid congestion on US Route 7 when accessing the site, however, a significant amount of trips will continue to access the site via the existing routing as most Burlington related trips will not see reduced travel times associated with the addition of Champlain Parkway to the infrastructure. A review of the Champlain Parkway traffic volume networks indicates that peak hour trips to and from Burton and surrounding businesses were not expected to divert from current travel routes. However, the Champlain Parkway did not anticipate the redevelopment to include a more regional generator such as Higher Ground. The Higher Ground trips that are expected to originate more regionally were diverted to Champlain Parkway for the condition with that infrastructure in place. Local trips exiting to Route 7 and points south continued to be distributed via Queen City Park Road.

Human Powered Trips

South Burlington raised a concern regarding trips made by human powered modes such as bicycling and walking. Although based on the time frame of the typical show, walking and cycling trips will be low, some local residents may choose these modes. For trips made by bicycle, Higher Ground will encourage patrons to exit the site and proceed north on Queen City Park Road, turn right onto Home Avenue and travel to local destinations rather than leaving the site to the south where a cyclist would have to cross the single lane bridge. Without proper lighting on the bicycle, travel to the south may cause a safety concern where a driver in the opposing direction did not see the cyclist on the bridge before proceeding. The Higher Ground operational plan will include informing Higher Ground staff to direct all cyclists to the safer route. Pedestrians will be able to proceed in either direction. To the north pedestrians will travel on sidewalks within the Burton site and then either along the eastern roadway edge or cross to the sidewalk on the western side of Queen City Park Road to connect to the sidewalk network on Home Avenue. Pedestrian trips to the south will require the crossing of Queen City Park Road to access the sidepath to the south of the roadway and safely cross the single lane bridge. As outlined above, these pedestrians will proceed along the roadway edge until reaching the sidewalk on the south side of Queen City Park Road just east of Arthur Court.

Off Peak Hours

The critical traffic time analyzed was the combination of the weekday commuter peak hour and the overlap of early patron arrival for a peak attendance event. The more typical occurrence would be a lower attended event and less of an overlap between commuter traffic and event traffic. As outlined in application materials, there will be opportunities for the community and private events to use the space as available. These events may take place at different times of day, but are not likely to reach the level of a full occupancy performance. The peer review consultant for the City of Burlington did express a concern regarding the operation of the single lane bridge after a peak attendance event. The operation of the single lane bridge is discussed in detail in the TIS and below.

Traffic Analyses

Intersection capacity analyses were performed for the study area intersections and presented in the TIS. The intersections in South Burlington were similarly analyzed using the criteria published in the *2000 Highway Capacity Manual*.[1] Level of Service is the term that defines the conditions that may occur on a given roadway or at an intersection when accommodating various traffic volume loads. Levels of service range from A to F with LOS A representing generally free flowing operating conditions and LOS F representing generally congested conditions. Copies of the LOS calculations are provided in the Appendix.

TIS Intersections

The TIS summarized the operational analysis at the *signalized* study area intersections during the Existing and 2028 AM and PM peak hours under No Build and Build conditions. The signalized intersections along US Route 7 currently operate at LOS C or better in the peak hour. Without construction of the Champlain Parkway, the addition of traffic associated with the Burton redevelopment will result in changes in delay of less than 4 seconds per vehicle during the weekday PM peak hour.

The Champlain Parkway is anticipated to alleviate some of the existing delays along US Route 7 (Shelburne Street) as traffic diverts from the US Route 7 corridor to the Champlain Parkway. The newly signalized intersection of Home Avenue at the Champlain Parkway is anticipated to operate at LOS C in the AM peak hour and LOS E in the PM peak hour. It is possible that design changes to lane usage may occur prior to completion of construction. With the Champlain Parkway constructed, the addition of the traffic associated with the Burton redevelopment will result in changes in delay of less than 15 seconds per vehicle during the weekday PM peak hour. The City of South Burlington requested that operational results be provided by movement. That information is provided in the Appendix of this memorandum.

The TIS included the operational analysis at the *unsignalized* study area intersections during the Existing and 2028 AM and PM peak hours under No Build and Build conditions. As shown in the TIS, all intersection approaches are expected to operate at LOS C or better. For all intersection approaches included in the TIS, changes related to the trips generated from the proposed Burton redevelopment result in delay increases of less than 4 seconds once the Champlain Parkway is constructed.

The operational analysis at the *unsignalized* intersections along Queen City Park Road in South Burlington indicates that all intersection approaches are expected to operate at LOS C or better with Burton trip related delay increases of less than 3 seconds. Once the Champlain Parkway is in place, Pine Street will dead end at the Champlain Parkway and no longer connect to Queen City Park Road. The resulting traffic volumes at these two unsignalized locations would change, resulting in significantly less delay for the heavier movements. For all intersection approaches, changes related to the trips generated from the proposed Burton redevelopment result in delay increases of less than 3 seconds.

[1] Highway Capacity Manual, Federal Highway Administration, Transportation Research Board, 2000.

Other Analysis – One Lane Bridge

The one lane bridge on Queen City Park Road currently operates as a yield control unsignalized intersection with vehicles yielding in the event there is a vehicle operating in the opposing direction on the bridge. The City of South Burlington has expressed a concern regarding the operation of the bridge in the future. Based on the traffic volumes presented in the Champlain Parkway traffic analysis, traffic volumes along Queen City Park Road are anticipated to change very little with the addition of the new roadway infrastructure to the network, so it is likely that the bridge will continue to operate in a similar fashion in the future.

The Burton redevelopment will increase traffic volumes during the PM peak hour, however, based on the origins of the traffic and the routes provided by mapping software and smartphone apps to reach the site, the PM peak hour traffic entering the Higher Ground portion of the site is more likely to use Home Avenue to reach the site. During the late evening hours, when Higher Ground traffic will be exiting and mapping software and smartphone apps are more likely to route traffic toward the one lane bridge, the typical traffic volumes on the bridge will be significantly lower than during the peak hour with little to no opposing traffic, and therefore able to accommodate the exiting eastbound traffic.

VHB has simulated the one lane bridge operation using SimTraffic. The bridge was simulated as series of closely spaced, signalized, split phase intersections representative of the alternating, two-way operation in the real-world. Consistent with operations in the field, where most vehicles hesitate before proceeding, the simulation shows most vehicles have little delay before proceeding and travel across the bridge one at a time in alternating directions. At times in the simulation, as in the field, traffic on the same approach will travel one after the other when no other vehicles are waiting.

The Build PM peak hour and late evening Higher Ground show release scenarios were simulated and found to be consistent with the existing operations. The delay for the existing operation of the one lane bridge was estimated to be less than 8 seconds. Additional simulations of Burton build and late evening Higher Ground show release scenarios revealed no more than one additional second of delay for the build conditions. The outputs from the simulations are included in the Appendix.

Operational Plan

The operators of Higher Ground have been working with area residents to develop an operational plan to address their concerns regarding traffic, parking and safety. The operational plan indicates the levels of staff anticipated to be on site based on the size of the events and how that staff will manage the safety and operations of the entering and exiting patrons and is provided as a part of the permit application. Relevant to the concerns raised by South Burlington, the plan includes reference to signage being deployed at the end of Central Avenue indicating that event parking is not permitted, and that the road is not a through route to discourage patrons looking for a cut through to the south. In addition, the routing of bicyclists exiting to the north provides those cyclists with a safer route than traveling over the one lane bridge to the east. Higher Ground staff will direct cyclists to the north when exiting the site.

There is a commitment to encourage non-automobile trips. As such, Higher Ground will encourage patrons to arrive by Green Mountain Transit (GMT). Because GMT route schedules end before the anticipated end time of events, the potential for dedicated GMT bus(es) is being discussed. In addition, University of Vermont and Champlain College

have been approached regarding the potential for students to access the site using existing shuttles. Further discussion will continue. Finally, the venue is considering preferred, dedicated high-occupancy vehicle parking on site to incentivize carpooling and ride sharing.

Conclusions

The redevelopment of the Burton site will accommodate a new mix of land uses including a performing arts space. As outlined above, conservatively high trip generation estimates are anticipated to increase site trips by 6 trips during the AM peak hour and 222 trips during the PM peak hour. As shown, the delay increases associated with the project at the South Burlington intersections are anticipated to be minor.

Higher Ground has committed to an operational plan to address the concerns raised by the neighbors and officials with concerns regarding traffic, parking and safety. As indicated above, measures will be taken to eliminate parking and unnecessary trips Central Avenue. In addition, the site is working to encourage non-automobile trips by working with GMT and area colleges to provide busses and shuttles for patrons to the site. Finally, the plan contains direction to staff to ensure that cyclist travel on the safer of the two routes leaving the site when visibility is poor.

Technical Appendix
Traffic

- South Burlington Intersection Capacity Analyses
  - Unsignalized Intersections LOS Summary
  - Unsignalized Intersection Reports Burton Hub No Build
  - Unsignalized Intersection Reports Burton Hub Build

UNSIGNALIZED INTERSECTION CAPACITY ANALYSES SUMMARY
SOUTH BURLINGTON INTERSECTIONS

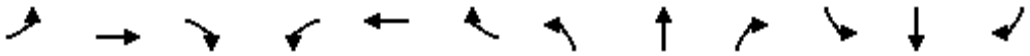
	Intersection	Champlain Parkway No Build						Champlain Parkway Build					
		Burton No Build			Burton Build			Burton No Build			Burton Build		
	Movement	v/c+	Delay*	LOS **	v/c+	Delay*	LOS **	v/c+	Delay*	LOS **	v/c+	Delay*	LOS **
		2008											
AM	**Queen City Park Rd / Pine St**												
	EB from Queen City Park Rd	0.02	1.8	A	0.02	1.8	A	Pine Street to Dead End at Champlain Parkway			Pine Street to Dead End at Champlain Parkway		
	WB from Queen City Park Rd	0.19	0.0		0.19	0.0							
	SB from Pine St	0.32	13.2	B	0.32	13.2	B						
	Queen City Park Rd / Hannaford Access												
	EB from Queen City Park Rd	0.36	10.1	B	0.37	10.1	B	0.09	7.3	A	0.09	7.3	A
	WB from Apt Access	0.03	7.7	A	0.03	7.7	A	0.01	6.6	A	0.01	6.6	A
	NB from Hannaford Access	0.17	9.2	A	0.17	9.2	A	0.04	7.5	A	0.04	7.6	A
	SB from Queen City Park Rd Ext	0.26	8.8	A	0.26	8.8	A	0.06	6.8	A	0.06	6.8	A
PM	**Queen City Park Rd / Pine St**												
	EB from Queen City Park Rd	0.02	1.2	A	0.02	1.1	A	Pine Street to Dead End at Champlain Parkway			Pine Street to Dead End at Champlain Parkway		
	WB from Queen City Park Rd	0.15	0.0		0.18	0.0							
	SB from Pine St	0.40	14.4	B	0.45	16.2	C						
	Queen City Park Rd / Hannaford Access												
	EB from Queen City Park Rd	0.50	12.1	B	0.55	13.5	B	0.17	7.9	A	0.21	8.3	A
	WB from Apt Access	0.00	7.9	A	0.00	8.2	A	0.00	7.3	A	0.00	7.5	A
	NB from Hannaford Access	0.30	10.3	B	0.31	10.7	B	0.10	7.9	A	0.10	8.1	A
	SB from Queen City Park Rd Ext	0.12	8.4	A	0.19	9.0	A	0.04	7.1	A	0.10	7.3	A

	Intersection	Champlain Parkway No Build						Champlain Parkway Build					
		Burton No Build			Burton Build			Burton No Build			Burton Build		
	Movement	v/c+	Delay*	LOS **	v/c+	Delay*	LOS **	v/c+	Delay*	LOS **	v/c+	Delay*	LOS **
		2028											
AM	**Queen City Park Rd / Pine St**												
	EB from Queen City Park Rd	0.02	1.8	A	0.02	1.8	A	Pine Street to Dead End at Champlain Parkway			Pine Street to Dead End at Champlain Parkway		
	WB from Queen City Park Rd	0.20	0.0		0.20	0.0							
	SB from Pine St	0.34	13.7	B	0.34	13.7	B						
	Queen City Park Rd / Hannaford Access												
	EB from Queen City Park Rd	0.38	10.4	B	0.39	10.4	B	0.09	7.3	A	0.09	7.3	A
	WB from Apt Access	0.03	7.8	A	0.03	7.8	A	0.01	6.6	A	0.01	6.6	A
	NB from Hannaford Access	0.18	9.3	A	0.18	9.3	A	0.04	7.6	A	0.04	7.6	A
	SB from Queen City Park Rd Ext	0.28	9.0	A	0.28	9.0	A	0.06	6.8	A	0.07	6.9	A
PM	**Queen City Park Rd / Pine St**												
	EB from Queen City Park Rd	0.02	1.2	A	0.02	1.1	A	Pine Street to Dead End at Champlain Parkway			Pine Street to Dead End at Champlain Parkway		
	WB from Queen City Park Rd	0.17	0.0		0.20	0.0							
	SB from Pine St	0.50	17.1	C	0.56	20.0	C						
	Queen City Park Rd / Hannaford Access												
	EB from Queen City Park Rd	0.60	14.6	B	0.66	16.8	C	0.20	8.2	A	0.24	8.6	A
	WB from Apt Access	0.00	8.2	A	0.00	8.5	A	0.00	7.4	A	0.00	7.6	A
	NB from Hannaford Access	0.36	11.4	B	0.38	11.9	B	0.12	8.1	A	0.12	8.3	A
	SB from Queen City Park Rd Ext	0.14	8.9	A	0.22	9.6	A	0.04	7.2	A	0.11	7.5	A

+ *Volume to capacity ratio*

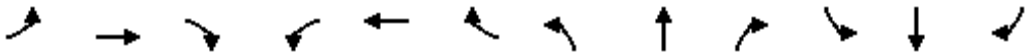
** Delay expressed in seconds per vehicle*

*** Level of Service*



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	0	42	0	0	5	30	1	0	1	3	53
Future Volume (vph)	33	0	42	0	0	5	30	1	0	1	3	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.924			0.865						0.874	
Flt Protected		0.979						0.954			0.999	
Satd. Flow (prot)	0	1685	0	0	1611	0	0	1777	0	0	1626	0
Flt Permitted		0.979						0.954			0.999	
Satd. Flow (perm)	0	1685	0	0	1611	0	0	1777	0	0	1626	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1095			129			158			113	
Travel Time (s)		24.9			2.9			3.6			2.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	36	0	46	0	0	5	33	1	0	1	3	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	82	0	0	5	0	0	34	0	0	62	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

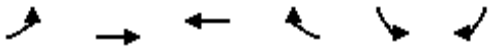
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.1%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	33	0	42	0	0	5	30	1	0	1	3	53
Future Volume (vph)	33	0	42	0	0	5	30	1	0	1	3	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	36	0	46	0	0	5	33	1	0	1	3	58

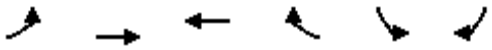
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	82	5	34	62
Volume Left (vph)	36	0	33	1
Volume Right (vph)	46	5	0	58
Hadj (s)	-0.21	-0.57	0.23	-0.52
Departure Headway (s)	3.9	3.6	4.4	3.6
Degree Utilization, x	0.09	0.01	0.04	0.06
Capacity (veh/h)	900	963	797	974
Control Delay (s)	7.3	6.6	7.5	6.8
Approach Delay (s)	7.3	6.6	7.5	6.8
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.1		
Level of Service	A		
Intersection Capacity Utilization	26.1%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	20	75	124	173	174	13
Future Volume (vph)	20	75	124	173	174	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.921		0.991	
Flt Protected		0.990			0.956	
Satd. Flow (prot)	0	1844	1716	0	1765	0
Flt Permitted		0.990			0.956	
Satd. Flow (perm)	0	1844	1716	0	1765	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1207	1095		1741	
Travel Time (s)		27.4	24.9		39.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	82	135	188	189	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	104	323	0	203	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

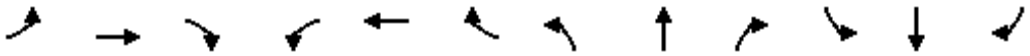
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.4%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	20	75	124	173	174	13
Future Volume (Veh/h)	20	75	124	173	174	13
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	82	135	188	189	14
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	323				355	229
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	323				355	229
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				70	98
cM capacity (veh/h)	1237				632	810

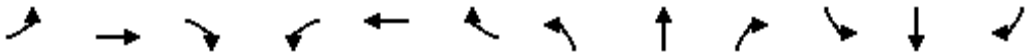
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	104	323	203
Volume Left	22	0	189
Volume Right	0	188	14
cSH	1237	1700	641
Volume to Capacity	0.02	0.19	0.32
Queue Length 95th (ft)	1	0	34
Control Delay (s)	1.8	0.0	13.2
Lane LOS	A		B
Approach Delay (s)	1.8	0.0	13.2
Approach LOS			B

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	38.4%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	118	0	149	1	1	17	107	3	0	3	11	188
Future Volume (vph)	118	0	149	1	1	17	107	3	0	3	11	188
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.925			0.878						0.874	
Flt Protected		0.978			0.998			0.954			0.999	
Satd. Flow (prot)	0	1685	0	0	1632	0	0	1777	0	0	1626	0
Flt Permitted		0.978			0.998			0.954			0.999	
Satd. Flow (perm)	0	1685	0	0	1632	0	0	1777	0	0	1626	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1095			91			153			113	
Travel Time (s)		24.9			2.1			3.5			2.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	128	0	162	1	1	18	116	3	0	3	12	204
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	290	0	0	20	0	0	119	0	0	219	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

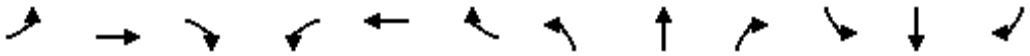
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.8%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	118	0	149	1	1	17	107	3	0	3	11	188
Future Volume (vph)	118	0	149	1	1	17	107	3	0	3	11	188
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	128	0	162	1	1	18	116	3	0	3	12	204

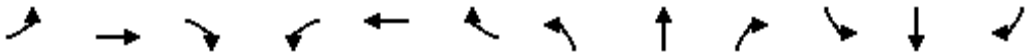
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	290	20	119	219
Volume Left (vph)	128	1	116	3
Volume Right (vph)	162	18	0	204
Hadj (s)	-0.21	-0.50	0.23	-0.52
Departure Headway (s)	4.5	4.6	5.1	4.3
Degree Utilization, x	0.36	0.03	0.17	0.26
Capacity (veh/h)	751	697	652	781
Control Delay (s)	10.1	7.7	9.2	8.8
Approach Delay (s)	10.1	7.7	9.2	8.8
Approach LOS	B	A	A	A

Intersection Summary				
Delay	9.4			
Level of Service	A			
Intersection Capacity Utilization	50.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	0	44	0	0	5	32	1	0	1	3	56
Future Volume (vph)	35	0	44	0	0	5	32	1	0	1	3	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.925			0.865						0.873	
Flt Protected		0.978						0.954			0.999	
Satd. Flow (prot)	0	1685	0	0	1611	0	0	1777	0	0	1625	0
Flt Permitted		0.978						0.954			0.999	
Satd. Flow (perm)	0	1685	0	0	1611	0	0	1777	0	0	1625	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1095			122			157			113	
Travel Time (s)		24.9			2.8			3.6			2.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	0	48	0	0	5	35	1	0	1	3	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	0	0	5	0	0	36	0	0	65	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

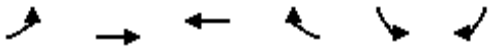
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.5%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	35	0	44	0	0	5	32	1	0	1	3	56
Future Volume (vph)	35	0	44	0	0	5	32	1	0	1	3	56
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	38	0	48	0	0	5	35	1	0	1	3	61

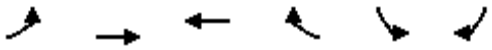
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	86	5	36	65
Volume Left (vph)	38	0	35	1
Volume Right (vph)	48	5	0	61
Hadj (s)	-0.21	-0.57	0.23	-0.53
Departure Headway (s)	3.9	3.6	4.4	3.6
Degree Utilization, x	0.09	0.01	0.04	0.06
Capacity (veh/h)	897	957	795	970
Control Delay (s)	7.3	6.6	7.6	6.8
Approach Delay (s)	7.3	6.6	7.6	6.8
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.2			
Level of Service	A			
Intersection Capacity Utilization	26.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	21	79	130	181	182	14
Future Volume (vph)	21	79	130	181	182	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.921		0.990	
Flt Protected		0.990			0.956	
Satd. Flow (prot)	0	1844	1716	0	1763	0
Flt Permitted		0.990			0.956	
Satd. Flow (perm)	0	1844	1716	0	1763	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1207	1095		1741	
Travel Time (s)		27.4	24.9		39.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	86	141	197	198	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	109	338	0	213	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

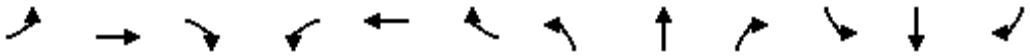
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 39.9%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	79	130	181	182	14
Future Volume (Veh/h)	21	79	130	181	182	14
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	86	141	197	198	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	338				372	240
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	338				372	240
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				68	98
cM capacity (veh/h)	1221				617	799

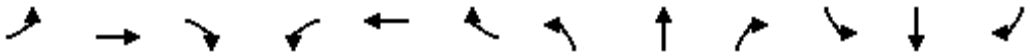
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	109	338	213
Volume Left	23	0	198
Volume Right	0	197	15
cSH	1221	1700	627
Volume to Capacity	0.02	0.20	0.34
Queue Length 95th (ft)	1	0	37
Control Delay (s)	1.8	0.0	13.7
Lane LOS	A		B
Approach Delay (s)	1.8	0.0	13.7
Approach LOS			B

Intersection Summary			
Average Delay	4.7		
Intersection Capacity Utilization	39.9%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	0	156	1	1	17	112	3	0	3	12	197
Future Volume (vph)	123	0	156	1	1	17	112	3	0	3	12	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.925			0.878						0.874	
Flt Protected		0.978			0.998			0.953			0.999	
Satd. Flow (prot)	0	1685	0	0	1632	0	0	1775	0	0	1626	0
Flt Permitted		0.978			0.998			0.953			0.999	
Satd. Flow (perm)	0	1685	0	0	1632	0	0	1775	0	0	1626	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1095			119			144			113	
Travel Time (s)		24.9			2.7			3.3			2.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	134	0	170	1	1	18	122	3	0	3	13	214
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	304	0	0	20	0	0	125	0	0	230	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

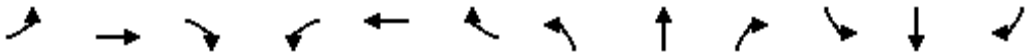
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 52.4%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	123	0	156	1	1	17	112	3	0	3	12	197
Future Volume (vph)	123	0	156	1	1	17	112	3	0	3	12	197
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	134	0	170	1	1	18	122	3	0	3	13	214

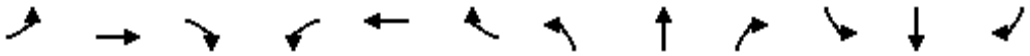
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	304	20	125	230
Volume Left (vph)	134	1	122	3
Volume Right (vph)	170	18	0	214
Hadj (s)	-0.21	-0.50	0.23	-0.52
Departure Headway (s)	4.6	4.7	5.2	4.3
Degree Utilization, x	0.38	0.03	0.18	0.28
Capacity (veh/h)	743	681	643	771
Control Delay (s)	10.4	7.8	9.3	9.0
Approach Delay (s)	10.4	7.8	9.3	9.0
Approach LOS	B	A	A	A

Intersection Summary				
Delay	9.6			
Level of Service	A			
Intersection Capacity Utilization	52.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	6	55	0	0	0	51	24	0	1	9	20
Future Volume (vph)	78	6	55	0	0	0	51	24	0	1	9	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.947									0.910	
Flt Protected		0.973						0.967			0.998	
Satd. Flow (prot)	0	1716	0	0	1863	0	0	1801	0	0	1692	0
Flt Permitted		0.973						0.967			0.998	
Satd. Flow (perm)	0	1716	0	0	1863	0	0	1801	0	0	1692	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1095			192			145			113	
Travel Time (s)		24.9			4.4			3.3			2.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	85	7	60	0	0	0	55	26	0	1	10	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	152	0	0	0	0	0	81	0	0	33	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

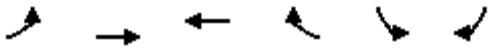
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 25.4%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	78	6	55	0	0	0	51	24	0	1	9	20
Future Volume (vph)	78	6	55	0	0	0	51	24	0	1	9	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	85	7	60	0	0	0	55	26	0	1	10	22

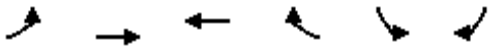
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	152	0	81	33
Volume Left (vph)	85	0	55	1
Volume Right (vph)	60	0	0	22
Hadj (s)	-0.09	0.00	0.17	-0.36
Departure Headway (s)	4.1	4.3	4.4	4.0
Degree Utilization, x	0.17	0.00	0.10	0.04
Capacity (veh/h)	860	812	777	867
Control Delay (s)	7.9	7.3	7.9	7.1
Approach Delay (s)	7.9	0.0	7.9	7.1
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.8			
Level of Service	A			
Intersection Capacity Utilization	25.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	21	139	76	152	221	15
Future Volume (vph)	21	139	76	152	221	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.910		0.992	
Flt Protected		0.993			0.955	
Satd. Flow (prot)	0	1850	1695	0	1765	0
Flt Permitted		0.993			0.955	
Satd. Flow (perm)	0	1850	1695	0	1765	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1207	1095		1741	
Travel Time (s)		27.4	24.9		39.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	151	83	165	240	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	174	248	0	256	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

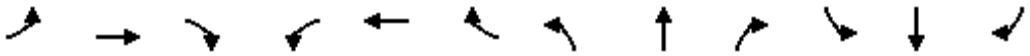
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 44.9%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	139	76	152	221	15
Future Volume (Veh/h)	21	139	76	152	221	15
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	151	83	165	240	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	248				362	166
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	248				362	166
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				62	98
cM capacity (veh/h)	1318				626	879

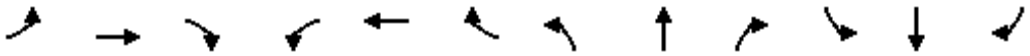
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	174	248	256
Volume Left	23	0	240
Volume Right	0	165	16
cSH	1318	1700	637
Volume to Capacity	0.02	0.15	0.40
Queue Length 95th (ft)	1	0	48
Control Delay (s)	1.2	0.0	14.4
Lane LOS	A		B
Approach Delay (s)	1.2	0.0	14.4
Approach LOS			B

Intersection Summary			
Average Delay	5.7		
Intersection Capacity Utilization	44.9%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	203	16	142	0	1	1	131	61	1	4	23	53
Future Volume (vph)	203	16	142	0	1	1	131	61	1	4	23	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.947			0.932			0.999			0.910	
Flt Protected		0.973						0.967			0.998	
Satd. Flow (prot)	0	1716	0	0	1736	0	0	1799	0	0	1692	0
Flt Permitted		0.973						0.967			0.998	
Satd. Flow (perm)	0	1716	0	0	1736	0	0	1799	0	0	1692	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1095			175			147			113	
Travel Time (s)		24.9			4.0			3.3			2.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	221	17	154	0	1	1	142	66	1	4	25	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	392	0	0	2	0	0	209	0	0	87	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

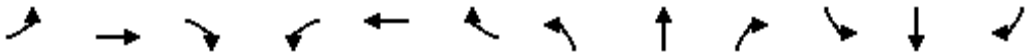
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 51.3%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	203	16	142	0	1	1	131	61	1	4	23	53
Future Volume (vph)	203	16	142	0	1	1	131	61	1	4	23	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	221	17	154	0	1	1	142	66	1	4	25	58

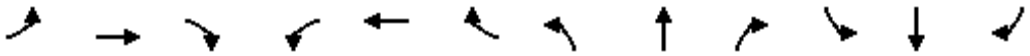
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	392	2	209	87
Volume Left (vph)	221	0	142	4
Volume Right (vph)	154	1	1	58
Hadj (s)	-0.09	-0.27	0.17	-0.36
Departure Headway (s)	4.6	4.9	5.2	4.8
Degree Utilization, x	0.50	0.00	0.30	0.12
Capacity (veh/h)	750	652	656	676
Control Delay (s)	12.1	7.9	10.3	8.4
Approach Delay (s)	12.1	7.9	10.3	8.4
Approach LOS	B	A	B	A

Intersection Summary				
Delay	11.1			
Level of Service	B			
Intersection Capacity Utilization	51.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	7	64	0	0	0	59	27	0	2	10	24
Future Volume (vph)	91	7	64	0	0	0	59	27	0	2	10	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.947									0.910	
Flt Protected		0.973						0.967			0.997	
Satd. Flow (prot)	0	1716	0	0	1863	0	0	1801	0	0	1690	0
Flt Permitted		0.973						0.967			0.997	
Satd. Flow (perm)	0	1716	0	0	1863	0	0	1801	0	0	1690	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1095			151			143			113	
Travel Time (s)		24.9			3.4			3.3			2.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	99	8	70	0	0	0	64	29	0	2	11	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	177	0	0	0	0	0	93	0	0	39	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

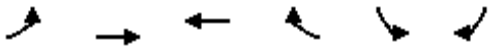
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.3%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	91	7	64	0	0	0	59	27	0	2	10	24
Future Volume (vph)	91	7	64	0	0	0	59	27	0	2	10	24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	99	8	70	0	0	0	64	29	0	2	11	26

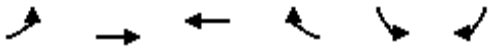
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	177	0	93	39
Volume Left (vph)	99	0	64	2
Volume Right (vph)	70	0	0	26
Hadj (s)	-0.09	0.00	0.17	-0.36
Departure Headway (s)	4.1	4.4	4.5	4.0
Degree Utilization, x	0.20	0.00	0.12	0.04
Capacity (veh/h)	849	795	762	845
Control Delay (s)	8.2	7.4	8.1	7.2
Approach Delay (s)	8.2	0.0	8.1	7.2
Approach LOS	A	A	A	A

Intersection Summary				
Delay	8.0			
Level of Service	A			
Intersection Capacity Utilization	27.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	24	162	88	176	256	17
Future Volume (vph)	24	162	88	176	256	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.910		0.992	
Flt Protected		0.994			0.955	
Satd. Flow (prot)	0	1852	1695	0	1765	0
Flt Permitted		0.994			0.955	
Satd. Flow (perm)	0	1852	1695	0	1765	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1207	1095		1741	
Travel Time (s)		27.4	24.9		39.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	176	96	191	278	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	202	287	0	296	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

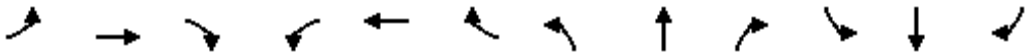
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.5%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	24	162	88	176	256	17
Future Volume (Veh/h)	24	162	88	176	256	17
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	176	96	191	278	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	287				420	192
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	287				420	192
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				52	98
cM capacity (veh/h)	1275				578	850

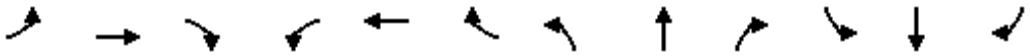
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	202	287	296
Volume Left	26	0	278
Volume Right	0	191	18
cSH	1275	1700	590
Volume to Capacity	0.02	0.17	0.50
Queue Length 95th (ft)	2	0	70
Control Delay (s)	1.2	0.0	17.1
Lane LOS	A		C
Approach Delay (s)	1.2	0.0	17.1
Approach LOS			C

Intersection Summary			
Average Delay	6.7		
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	235	18	165	0	1	1	152	71	1	4	27	61
Future Volume (vph)	235	18	165	0	1	1	152	71	1	4	27	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.947			0.932			0.999			0.910	
Flt Protected		0.973						0.967			0.998	
Satd. Flow (prot)	0	1716	0	0	1736	0	0	1799	0	0	1692	0
Flt Permitted		0.973						0.967			0.998	
Satd. Flow (perm)	0	1716	0	0	1736	0	0	1799	0	0	1692	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1095			169			142			113	
Travel Time (s)		24.9			3.8			3.2			2.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	255	20	179	0	1	1	165	77	1	4	29	66
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	454	0	0	2	0	0	243	0	0	99	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

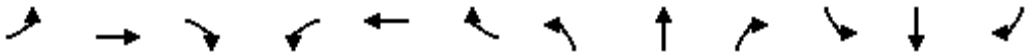
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 56.3%		ICU Level of Service B	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	235	18	165	0	1	1	152	71	1	4	27	61
Future Volume (vph)	235	18	165	0	1	1	152	71	1	4	27	61
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	255	20	179	0	1	1	165	77	1	4	29	66

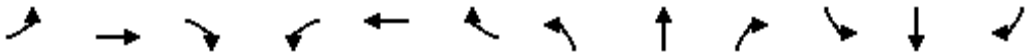
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	454	2	243	99
Volume Left (vph)	255	0	165	4
Volume Right (vph)	179	1	1	66
Hadj (s)	-0.09	-0.27	0.17	-0.36
Departure Headway (s)	4.8	5.2	5.4	5.1
Degree Utilization, x	0.60	0.00	0.36	0.14
Capacity (veh/h)	729	603	617	636
Control Delay (s)	14.6	8.2	11.4	8.9
Approach Delay (s)	14.6	8.2	11.4	8.9
Approach LOS	B	A	B	A

Intersection Summary				
Delay	12.9			
Level of Service	B			
Intersection Capacity Utilization	56.3%	ICU Level of Service	B	
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	6	55	0	0	0	51	24	0	1	9	71
Future Volume (vph)	101	6	55	0	0	0	51	24	0	1	9	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.954									0.882	
Flt Protected		0.970						0.967			0.999	
Satd. Flow (prot)	0	1724	0	0	1863	0	0	1801	0	0	1641	0
Flt Permitted		0.970						0.967			0.999	
Satd. Flow (perm)	0	1724	0	0	1863	0	0	1801	0	0	1641	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1095			197			284			113	
Travel Time (s)		24.9			4.5			6.5			2.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	7	60	0	0	0	55	26	0	1	10	77
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	177	0	0	0	0	0	81	0	0	88	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

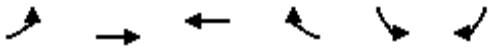
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.7%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	101	6	55	0	0	0	51	24	0	1	9	71
Future Volume (vph)	101	6	55	0	0	0	51	24	0	1	9	71
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	110	7	60	0	0	0	55	26	0	1	10	77

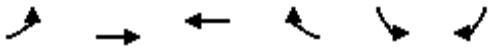
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	177	0	81	88
Volume Left (vph)	110	0	55	1
Volume Right (vph)	60	0	0	77
Hadj (s)	-0.05	0.00	0.17	-0.49
Departure Headway (s)	4.2	4.5	4.6	3.9
Degree Utilization, x	0.21	0.00	0.10	0.10
Capacity (veh/h)	822	775	750	876
Control Delay (s)	8.3	7.5	8.1	7.3
Approach Delay (s)	8.3	0.0	8.1	7.3
Approach LOS	A	A	A	A

Intersection Summary				
Delay	8.0			
Level of Service	A			
Intersection Capacity Utilization	26.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	21	162	127	152	221	15
Future Volume (vph)	21	162	127	152	221	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.926		0.992	
Flt Protected		0.994			0.955	
Satd. Flow (prot)	0	1852	1725	0	1765	0
Flt Permitted		0.994			0.955	
Satd. Flow (perm)	0	1852	1725	0	1765	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1207	1095		1741	
Travel Time (s)		27.4	24.9		39.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	176	138	165	240	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	199	303	0	256	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

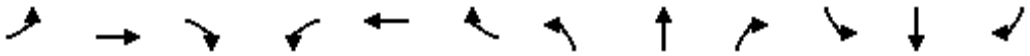
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 46.0%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	162	127	152	221	15
Future Volume (Veh/h)	21	162	127	152	221	15
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	176	138	165	240	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	303				442	220
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	303				442	220
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				57	98
cM capacity (veh/h)	1258				562	819

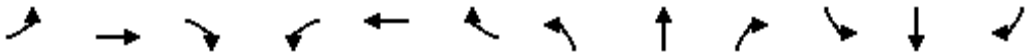
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	199	303	256
Volume Left	23	0	240
Volume Right	0	165	16
cSH	1258	1700	573
Volume to Capacity	0.02	0.18	0.45
Queue Length 95th (ft)	1	0	57
Control Delay (s)	1.1	0.0	16.2
Lane LOS	A		C
Approach Delay (s)	1.1	0.0	16.2
Approach LOS			C

Intersection Summary			
Average Delay	5.8		
Intersection Capacity Utilization	46.0%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	226	16	142	0	1	1	131	61	1	4	23	104
Future Volume (vph)	226	16	142	0	1	1	131	61	1	4	23	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.950			0.932			0.999			0.893	
Flt Protected		0.971						0.967			0.999	
Satd. Flow (prot)	0	1718	0	0	1736	0	0	1799	0	0	1662	0
Flt Permitted		0.971						0.967			0.999	
Satd. Flow (perm)	0	1718	0	0	1736	0	0	1799	0	0	1662	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1095			157			310			113	
Travel Time (s)		24.9			3.6			7.0			2.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	246	17	154	0	1	1	142	66	1	4	25	113
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	417	0	0	2	0	0	209	0	0	142	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

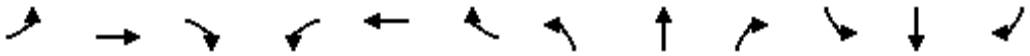
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 57.1%		ICU Level of Service B	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	226	16	142	0	1	1	131	61	1	4	23	104
Future Volume (vph)	226	16	142	0	1	1	131	61	1	4	23	104
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	246	17	154	0	1	1	142	66	1	4	25	113

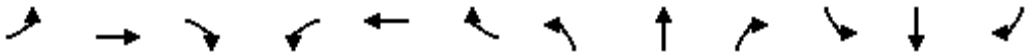
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	417	2	209	142
Volume Left (vph)	246	0	142	4
Volume Right (vph)	154	1	1	113
Hadj (s)	-0.07	-0.27	0.17	-0.44
Departure Headway (s)	4.8	5.2	5.3	4.9
Degree Utilization, x	0.55	0.00	0.31	0.19
Capacity (veh/h)	724	608	629	674
Control Delay (s)	13.5	8.2	10.7	9.0
Approach Delay (s)	13.5	8.2	10.7	9.0
Approach LOS	B	A	B	A

Intersection Summary				
Delay	11.9			
Level of Service	B			
Intersection Capacity Utilization	57.1%	ICU Level of Service	B	
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	114	7	64	0	0	0	59	27	0	2	10	75
Future Volume (vph)	114	7	64	0	0	0	59	27	0	2	10	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.953									0.883	
Flt Protected		0.970						0.967			0.999	
Satd. Flow (prot)	0	1722	0	0	1863	0	0	1801	0	0	1643	0
Flt Permitted		0.970						0.967			0.999	
Satd. Flow (perm)	0	1722	0	0	1863	0	0	1801	0	0	1643	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1095			224			306			113	
Travel Time (s)		24.9			5.1			7.0			2.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	124	8	70	0	0	0	64	29	0	2	11	82
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	202	0	0	0	0	0	93	0	0	95	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

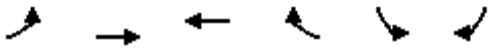
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.6%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	114	7	64	0	0	0	59	27	0	2	10	75
Future Volume (vph)	114	7	64	0	0	0	59	27	0	2	10	75
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	124	8	70	0	0	0	64	29	0	2	11	82

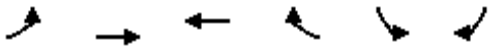
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	202	0	93	95
Volume Left (vph)	124	0	64	2
Volume Right (vph)	70	0	0	82
Hadj (s)	-0.05	0.00	0.17	-0.48
Departure Headway (s)	4.3	4.6	4.6	4.0
Degree Utilization, x	0.24	0.00	0.12	0.11
Capacity (veh/h)	811	757	736	842
Control Delay (s)	8.6	7.6	8.3	7.5
Approach Delay (s)	8.6	0.0	8.3	7.5
Approach LOS	A	A	A	A

Intersection Summary				
Delay	8.3			
Level of Service	A			
Intersection Capacity Utilization	28.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	24	185	139	176	256	17
Future Volume (vph)	24	185	139	176	256	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.925		0.992	
Flt Protected		0.994			0.955	
Satd. Flow (prot)	0	1852	1723	0	1765	0
Flt Permitted		0.994			0.955	
Satd. Flow (perm)	0	1852	1723	0	1765	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1207	1095		1741	
Travel Time (s)		27.4	24.9		39.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	201	151	191	278	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	227	342	0	296	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

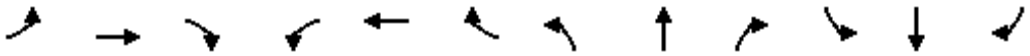
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 51.8%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	24	185	139	176	256	17
Future Volume (Veh/h)	24	185	139	176	256	17
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	201	151	191	278	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	342				500	246
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	342				500	246
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				46	98
cM capacity (veh/h)	1217				519	792

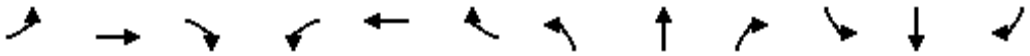
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	227	342	296
Volume Left	26	0	278
Volume Right	0	191	18
cSH	1217	1700	530
Volume to Capacity	0.02	0.20	0.56
Queue Length 95th (ft)	2	0	85
Control Delay (s)	1.1	0.0	20.0
Lane LOS	A		C
Approach Delay (s)	1.1	0.0	20.0
Approach LOS			C

Intersection Summary			
Average Delay	7.1		
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	258	18	165	0	1	1	152	71	1	4	27	112
Future Volume (vph)	258	18	165	0	1	1	152	71	1	4	27	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.950			0.932			0.999			0.894	
Flt Protected		0.972						0.967			0.999	
Satd. Flow (prot)	0	1720	0	0	1736	0	0	1799	0	0	1664	0
Flt Permitted		0.972						0.967			0.999	
Satd. Flow (perm)	0	1720	0	0	1736	0	0	1799	0	0	1664	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1095			209			361			113	
Travel Time (s)		24.9			4.8			8.2			2.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	280	20	179	0	1	1	165	77	1	4	29	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	479	0	0	2	0	0	243	0	0	155	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

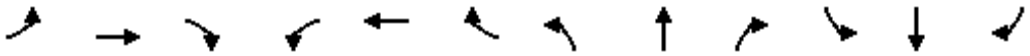
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 62.8%		ICU Level of Service B	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	258	18	165	0	1	1	152	71	1	4	27	112
Future Volume (vph)	258	18	165	0	1	1	152	71	1	4	27	112
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	280	20	179	0	1	1	165	77	1	4	29	122

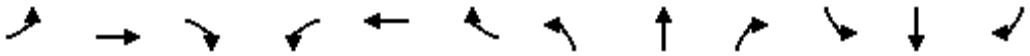
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	479	2	243	155
Volume Left (vph)	280	0	165	4
Volume Right (vph)	179	1	1	122
Hadj (s)	-0.07	-0.27	0.17	-0.43
Departure Headway (s)	4.9	5.5	5.6	5.2
Degree Utilization, x	0.66	0.00	0.38	0.22
Capacity (veh/h)	705	558	594	633
Control Delay (s)	16.8	8.5	11.9	9.6
Approach Delay (s)	16.8	8.5	11.9	9.6
Approach LOS	C	A	B	A

Intersection Summary				
Delay	14.2			
Level of Service	B			
Intersection Capacity Utilization	62.8%	ICU Level of Service	B	
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	0	42	0	0	5	30	1	0	1	3	55
Future Volume (vph)	34	0	42	0	0	5	30	1	0	1	3	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.925			0.865						0.873	
Flt Protected		0.978						0.954			0.999	
Satd. Flow (prot)	0	1685	0	0	1611	0	0	1777	0	0	1625	0
Flt Permitted		0.978						0.954			0.999	
Satd. Flow (perm)	0	1685	0	0	1611	0	0	1777	0	0	1625	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1095			206			272			113	
Travel Time (s)		24.9			4.7			6.2			2.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	0	46	0	0	5	33	1	0	1	3	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	83	0	0	5	0	0	34	0	0	64	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

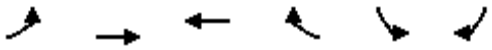
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.2%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	34	0	42	0	0	5	30	1	0	1	3	55
Future Volume (vph)	34	0	42	0	0	5	30	1	0	1	3	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	37	0	46	0	0	5	33	1	0	1	3	60

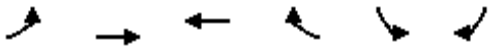
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	83	5	34	64
Volume Left (vph)	37	0	33	1
Volume Right (vph)	46	5	0	60
Hadj (s)	-0.21	-0.57	0.23	-0.53
Departure Headway (s)	3.9	3.6	4.4	3.6
Degree Utilization, x	0.09	0.01	0.04	0.06
Capacity (veh/h)	898	961	796	973
Control Delay (s)	7.3	6.6	7.6	6.8
Approach Delay (s)	7.3	6.6	7.6	6.8
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.2			
Level of Service	A			
Intersection Capacity Utilization	26.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	20	76	126	173	174	13
Future Volume (vph)	20	76	126	173	174	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.922		0.991	
Flt Protected		0.990			0.956	
Satd. Flow (prot)	0	1844	1717	0	1765	0
Flt Permitted		0.990			0.956	
Satd. Flow (perm)	0	1844	1717	0	1765	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1207	1095		1741	
Travel Time (s)		27.4	24.9		39.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	83	137	188	189	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	105	325	0	203	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

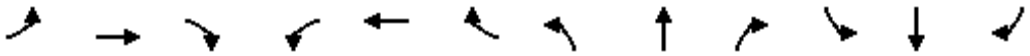
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.4%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	20	76	126	173	174	13
Future Volume (Veh/h)	20	76	126	173	174	13
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	83	137	188	189	14
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	325				358	231
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	325				358	231
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				70	98
cM capacity (veh/h)	1235				629	808

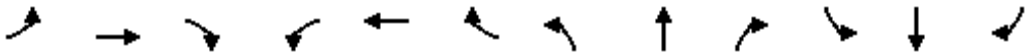
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	105	325	203
Volume Left	22	0	189
Volume Right	0	188	14
cSH	1235	1700	639
Volume to Capacity	0.02	0.19	0.32
Queue Length 95th (ft)	1	0	34
Control Delay (s)	1.8	0.0	13.2
Lane LOS	A		B
Approach Delay (s)	1.8	0.0	13.2
Approach LOS			B

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	38.4%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	119	0	149	1	1	17	107	3	0	3	11	190
Future Volume (vph)	119	0	149	1	1	17	107	3	0	3	11	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.925			0.878						0.874	
Flt Protected		0.978			0.998			0.954			0.999	
Satd. Flow (prot)	0	1685	0	0	1632	0	0	1777	0	0	1626	0
Flt Permitted		0.978			0.998			0.954			0.999	
Satd. Flow (perm)	0	1685	0	0	1632	0	0	1777	0	0	1626	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1095			223			219			113	
Travel Time (s)		24.9			5.1			5.0			2.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	129	0	162	1	1	18	116	3	0	3	12	207
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	291	0	0	20	0	0	119	0	0	222	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

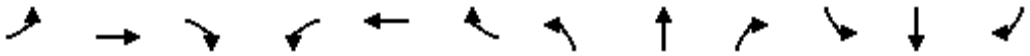
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 51.0%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	119	0	149	1	1	17	107	3	0	3	11	190
Future Volume (vph)	119	0	149	1	1	17	107	3	0	3	11	190
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	129	0	162	1	1	18	116	3	0	3	12	207

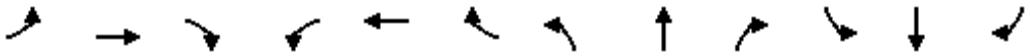
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	291	20	119	222
Volume Left (vph)	129	1	116	3
Volume Right (vph)	162	18	0	207
Hadj (s)	-0.21	-0.50	0.23	-0.52
Departure Headway (s)	4.5	4.6	5.1	4.3
Degree Utilization, x	0.37	0.03	0.17	0.26
Capacity (veh/h)	749	695	651	781
Control Delay (s)	10.1	7.7	9.2	8.8
Approach Delay (s)	10.1	7.7	9.2	8.8
Approach LOS	B	A	A	A

Intersection Summary			
Delay	9.4		
Level of Service	A		
Intersection Capacity Utilization	51.0%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	0	44	0	0	5	32	1	0	1	3	58
Future Volume (vph)	36	0	44	0	0	5	32	1	0	1	3	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.926			0.865						0.873	
Flt Protected		0.978						0.954			0.999	
Satd. Flow (prot)	0	1687	0	0	1611	0	0	1777	0	0	1625	0
Flt Permitted		0.978						0.954			0.999	
Satd. Flow (perm)	0	1687	0	0	1611	0	0	1777	0	0	1625	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1095			231			270			113	
Travel Time (s)		24.9			5.3			6.1			2.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	39	0	48	0	0	5	35	1	0	1	3	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	87	0	0	5	0	0	36	0	0	67	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

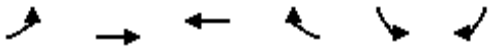
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.5%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	36	0	44	0	0	5	32	1	0	1	3	58
Future Volume (vph)	36	0	44	0	0	5	32	1	0	1	3	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	39	0	48	0	0	5	35	1	0	1	3	63

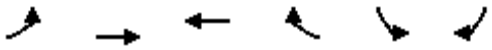
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	87	5	36	67
Volume Left (vph)	39	0	35	1
Volume Right (vph)	48	5	0	63
Hadj (s)	-0.21	-0.57	0.23	-0.53
Departure Headway (s)	3.9	3.6	4.4	3.6
Degree Utilization, x	0.09	0.01	0.04	0.07
Capacity (veh/h)	894	956	794	970
Control Delay (s)	7.3	6.6	7.6	6.9
Approach Delay (s)	7.3	6.6	7.6	6.9
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.2		
Level of Service	A		
Intersection Capacity Utilization	26.5%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	21	80	132	181	182	14
Future Volume (vph)	21	80	132	181	182	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.922		0.990	
Flt Protected		0.990			0.956	
Satd. Flow (prot)	0	1844	1717	0	1763	0
Flt Permitted		0.990			0.956	
Satd. Flow (perm)	0	1844	1717	0	1763	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1207	1095		1741	
Travel Time (s)		27.4	24.9		39.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	87	143	197	198	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	110	340	0	213	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

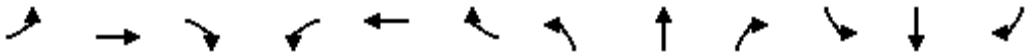
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 40.0%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	80	132	181	182	14
Future Volume (Veh/h)	21	80	132	181	182	14
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	87	143	197	198	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	340				374	242
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	340				374	242
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				68	98
cM capacity (veh/h)	1219				615	797

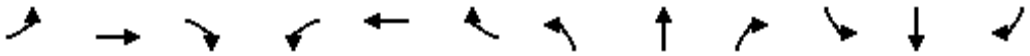
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	110	340	213
Volume Left	23	0	198
Volume Right	0	197	15
cSH	1219	1700	625
Volume to Capacity	0.02	0.20	0.34
Queue Length 95th (ft)	1	0	38
Control Delay (s)	1.8	0.0	13.7
Lane LOS	A		B
Approach Delay (s)	1.8	0.0	13.7
Approach LOS			B

Intersection Summary			
Average Delay	4.7		
Intersection Capacity Utilization	40.0%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	0	156	1	1	17	112	3	0	3	12	199
Future Volume (vph)	125	0	156	1	1	17	112	3	0	3	12	199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.925			0.878						0.874	
Flt Protected		0.978			0.998			0.953			0.999	
Satd. Flow (prot)	0	1685	0	0	1632	0	0	1775	0	0	1626	0
Flt Permitted		0.978			0.998			0.953			0.999	
Satd. Flow (perm)	0	1685	0	0	1632	0	0	1775	0	0	1626	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1095			223			334			113	
Travel Time (s)		24.9			5.1			7.6			2.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	136	0	170	1	1	18	122	3	0	3	13	216
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	306	0	0	20	0	0	125	0	0	232	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 52.6%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	125	0	156	1	1	17	112	3	0	3	12	199
Future Volume (vph)	125	0	156	1	1	17	112	3	0	3	12	199
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	136	0	170	1	1	18	122	3	0	3	13	216

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	306	20	125	232
Volume Left (vph)	136	1	122	3
Volume Right (vph)	170	18	0	216
Hadj (s)	-0.21	-0.50	0.23	-0.52
Departure Headway (s)	4.6	4.7	5.2	4.3
Degree Utilization, x	0.39	0.03	0.18	0.28
Capacity (veh/h)	742	680	642	770
Control Delay (s)	10.4	7.8	9.3	9.0
Approach Delay (s)	10.4	7.8	9.3	9.0
Approach LOS	B	A	A	A

Intersection Summary			
Delay	9.7		
Level of Service	A		
Intersection Capacity Utilization	52.6%	ICU Level of Service	A
Analysis Period (min)	15		